

## **Project Description – Background, Purpose and Need, Proposed Action**

The Anaconda – Grace 161 kilovolt (kV) Electric Transmission Power Line (Line 601) is an existing transmission line that runs from Goshen, Idaho, north to the Idaho-Montana state border. This line crosses lands under the jurisdiction of the Bureau of Land Management (BLM), U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) U.S. Sheep Experiment Station (USSES), Targhee National Forest (USFS), Idaho Department of State Lands (IDL), Idaho Fish and Game, and private lands. Line 601 ROW and access/service roads are located in Bingham, Bonneville, Jefferson, and Clark counties.

For the portions of Line 601 on BLM administered land, Idaho Power Company (IPC) operates Line 601 under the existing right-of-way (ROW) Grant IDBL-055068. For the portions of Line 601 on ARS land, IPC operates the line under an easement granted by ARS (#47508). These existing grants/easements do not address or authorize the roads providing access into and along the transmission line ROW.

The North American Electric Reliability Corporation (NERC), by authority delegated by the Federal Energy Regulatory Commission (FERC), and the Western Electricity Coordinating Council (WECC) have established standards for transmission owners for operation and maintenance of transmission lines. IPC must upgrade Line 601 to address safety requirements for transmission lines. Specific standards to be addressed include NERC standard FAC-008, NERC standard FAC 003-3, and WECC standard FAC-501-WECC-1.

NERC standard FAC-008 requires that each utility verify that their transmission line operating ratings are based on actual field conditions (not on design conditions) on all WECC path lines and NERC bulk electric system lines. Standard FAC-003-3 requires transmission owners to prepare and implement a formal vegetation management plan and requires, among other things, that transmission owners must identify, document, establish, and maintain clearances that must meet Minimum Voltage Clearance Distance (MVCD). Furthermore, utilities need to base ROW widths on being able to maintain enough clearance to eliminate phase-to-tree contact while the line is operating within its rating. WECC standard FAC-501-WECC-1 requires transmission owners to perform and document maintenance and inspection activities on all applicable WECC lines.

To address NERC standard FAC-008, IPC proposes to re-build portions of Line 601 to increase the height of some of the structures, which would increase vertical clearance of the lines where necessary. To address NERC standard FAC-003-3 and WECC standard FAC-501-WECC-1, IPC proposes to expand the existing ROW from 60 feet to 100 feet to allow for the ability to manage existing and future vegetation and provide IPC the ability to set up equipment within the ROW for required maintenance and inspection activities. Additionally, IPC is requesting authorization of the roads providing access into and along the transmission line ROW as part of the amended ROW Grant IDBL-055068 and ARS easement (#47508).

The purpose for the action is for IPC to comply with NERC reliability standards and WECC standards. Idaho Power Company would accomplish the compliance as described in the paragraphs above. In order to meet the purpose, IPC needs BLM's approval, through the

requested ROW amendment to the BLM ROW Grant IDBL-055068, to carry out these activities on BLM administered lands.

The proposed action includes amending the existing BLM ROW Grant IDBL-055068 to: 1) expand the existing Line 601 ROW from 60 feet to 100 feet; and 2) authorize construction, operation and maintenance of service roads as part of the grant. In addition to BLM- and ARS-administered land, Line 601 rebuilding activities being completed by IPC cross private, state, and U.S. Forest Service (USFS) lands. The Environmental Assessment (EA) would not analyze the project on those lands; however, to the extent possible, those activities would be addressed in the cumulative effects analysis. The USFS is considering this proposal through their regulations and policies.

### **Amending existing BLM ROW Grant IDBL-055068 and Rebuild**

The permanent transmission line ROW would be widened from 60 feet to 100 feet. This would result in 439 additional acres of ROW for the entire line, including 87 additional acres on BLM-administered land and 38.5 acres on ARS land.

Line 601 would be rebuilt by maintaining existing service roads and constructing new service roads where there is no existing access, replacing existing poles, stringing new fiber optic cable and conductor, and splicing conductor as necessary. Existing structures would be replaced with the same structure type (wooden H-frame) approximately 5- to 15-feet taller than the existing structures depending on terrain and sag requirements, with an actual height of 70 to 80 feet. The taller pole heights are necessary in order to comply with the NERC Facility Ratings Standard. Poles would be built to raptor-safe standards as specified in the Avian Power Line Interactive Committee's (APLIC) 2006 *Suggested Practices for Avian Protection on Power Lines* and in accordance with IPC's Avian Protection Policy.

Existing structures to be replaced would either be excavated and removed or cut off near ground level. Augers would be used to excavate the existing poles for removal. Work areas around the structure locations would be cleared of vegetation and graded only to the extent necessary to allow for safe installation of the structure. Because of ongoing vegetation maintenance (removal of vegetation within a 20-foot radius of each pole) to protect wood poles from wild fires, most existing structures do not have large amounts of vegetation immediately adjacent to the structure or within the immediate work area. Removal of vegetation within a 20-foot radius of poles of the current Line 601 occurs every two to three years as a maintenance activity and would continue for the duration of the operation of the line. Vegetation removal beyond these areas is expected to be minimal and limited to service road construction.

Work associated with structure replacement would be primarily confined to the previously disturbed work pad. Work pads would be created in areas where a flat landing is necessary for set-up and operation of construction equipment and would be approximately 40-feet by 60-feet. Equipment to create the level work pad could include a small bulldozer, backhoe, and/or excavator, depending on the specific location. Work pads would be constructed outside of the BLM- and ARS-administered lands.

Poles would be replaced on a 1:1 ratio in the same (or within 10 feet) location. The span length would vary between 600 to 1,100 feet with an average of 8 structures per mile. IPC would replace 432 structures, with 81 structures on BLM administered land, and 33 on ARS administered land. Permanent ground disturbance for each pole would consist of a 20-foot-radius (1,256 square feet) area kept clear of vegetation for fire protection. These activities occur as part of existing ongoing operations and maintenance (O&M) activities according to the existing grant. Therefore the disturbance would continue as part of the proposed action, but would not be new disturbance. This vegetation clearing would not occur for poles in the lava fields adjacent to the Hells Half Acre Wildlife Study Area (WSA), since the area is generally void of vegetation.

The proposed action can be split into three segments. Segment 1, the northernmost segment, would run from the Idaho-Montana state border south to the Big Grassy Substation and is 41 miles in length. Segment 2, the middle segment, would run from the Big Grassy Substation south to the Jefferson Substation and is 21 miles in length. Segment 3, the southernmost segment, would run from the Jefferson Substation south to the Goshen Substation and is 29 miles in length.

For Segment 1 and Segment 2, replacement poles would be wooden with wooden cross arms and outside guy braces, with a width of 32 feet. Cross arms would be 2 feet wider than the existing structures. The new poles (associated with each H-frame structure) would be spaced 15½ feet apart (existing poles are spaced 14½ feet apart). For Segment 3 replacement poles would be wooden with steel truss arms, with a width of 36 feet. The new poles (associated with each H-frame structure) would be 16½ feet apart on Segment 3 (existing poles are spaced 14½ feet apart).

New replacement structures would be installed upon removal of the existing structures. New structures would be assembled at the proposed structure location and consequently hoisted into place using a crane and material trucks. New structures would either be placed in the empty hole resulting from removal of the existing structure, or placed immediately adjacent to the old pole location. Excavation required for installing new structures would use power auger equipment, and holes would be 8 to 12 feet deep, depending on soil, structure height, and loading. Any structure holes left open or unguarded overnight or for more than one day would be covered and/or fenced where practical to protect the public, livestock, and wildlife. All remaining soil not needed for backfilling would be spread in the work area.

If rocky areas are encountered during hole excavation, blasting may be required. If blasting is necessary, appropriate safety guidelines would be followed, as required by state and federal regulations relating to blasting operations. Blasting would be used only after other reasonable means of excavation have been used and are unsuccessful in achieving the required results. It is not known in advance of construction if or how often blasting would be employed. The most important factors that determine whether blasting is necessary are the geology of the area and the hardness of rock material. If blasting is required for any portion of this project, controlled blasting procedures would be followed in order to limit the physical breaking or cracking of the rock to a localized area around each blast hole. Lava flows dominate the terrain within and in proximity to the Hells Half Acre WSA it would be necessary to drill and blast at all the structure locations within the lava field (34 structure locations, 29 of which would be on BLM

administered lands). IPC would also need to use controlled blasting at various locations in Segment 3 to aid in the construction of the proposed road/travel route along the line through the lava field on BLM-administered lands.

Once the structures are erected, fiber optic and conductor would be strung using powered pulling equipment at one end of the structures and powered braking or tensioning equipment at the other. A pilot line would be pulled (strung) from pole to pole and threaded through stringing sheaves on each pole. A larger diameter, stronger line would then be attached to the pilot line and strung. This process, known as “pulling line,” would be repeated until the fiber optic cable and conductor is pulled through all sheaves. If a conductor is damaged during stringing, conductor splicing would be required. Sites where equipment is stationed to pull line are called pulling and tensioning (P&T) sites. P&T sites are required approximately every 4 miles. P&T sites would be within the proposed 100-foot ROW and are assumed to be 100 feet wide by 600 feet long (centered at a structure) to allow for flexibility in placing equipment at each site. Actual area used for pulling and tensioning would be smaller. Re-conductoring and associated P&T sites would only occur in Segment 3.

Equipment used for P&T activities would create ground disturbance as they are driven to the site and located in the correct position. The P&T sites are primarily located on flat ground; therefore, IPC does not anticipate blade work at these sites, although vegetation crushing could occur due to movement and placement of equipment. After construction, each area would be restored using excess materials, vegetation, and topsoil stockpiled for that purpose.

#### **Authorize construction, operation and maintenance of service roads**

Line 601 would be accessed through a network of existing roads as well as new roads constructed as part of the Proposed Action. Existing service roads (roads meant to be used by IPC to access the line) would be maintained, repaired, and widened to provide access for large machinery for construction and maintenance activities. The existing roads, which vary in width from 8 to 14 feet wide, would be widened to 14 feet wide.

New service roads would be built to access structure locations that currently have no road access. Approximately 6.5 miles of new roads would be built for the project, with 4.3 miles of those roads on BLM administered land. The 4.3 miles of new roads that are proposed are located along the transmission line (Segment 3) in the lava fields adjacent to the Hells Half Acre WSA. These roads are categorized as new roads; although the level of disturbance and construction would vary depending on on-the-ground conditions. Roads would only be developed to allow construction equipment to access the line, set up, and safely work around the structures. They would not be reasonably and prudently drivable with a conventional passenger car or pickup. As these proposed roads are located within lava fields, these roads would not be bladed; rather construction would involve scraping and blasting to smooth out uneven terrain and filling crevices (with native material) until a reasonable travel route is achieved. In many instances construction vehicles would be following an overland travel route over the lava.

The majority of the 4.3 miles of road would occur within the existing 60-foot-wide ROW (2.5 miles) and/or the proposed 100-foot-wide ROW (1.8 miles); approximately 0.9 miles of new

road would occur outside of the proposed 100-foot-wide ROW and this would be authorized as part of the service road network under the amended grant. No new roads would be constructed on ARS lands. Service roads would generally be two-track roads in order to minimize environmental impacts. Additionally, overland service routes would be created from existing access roads to reach structures with no current access. Overland service routes would be not be graded or cleared of vegetation.